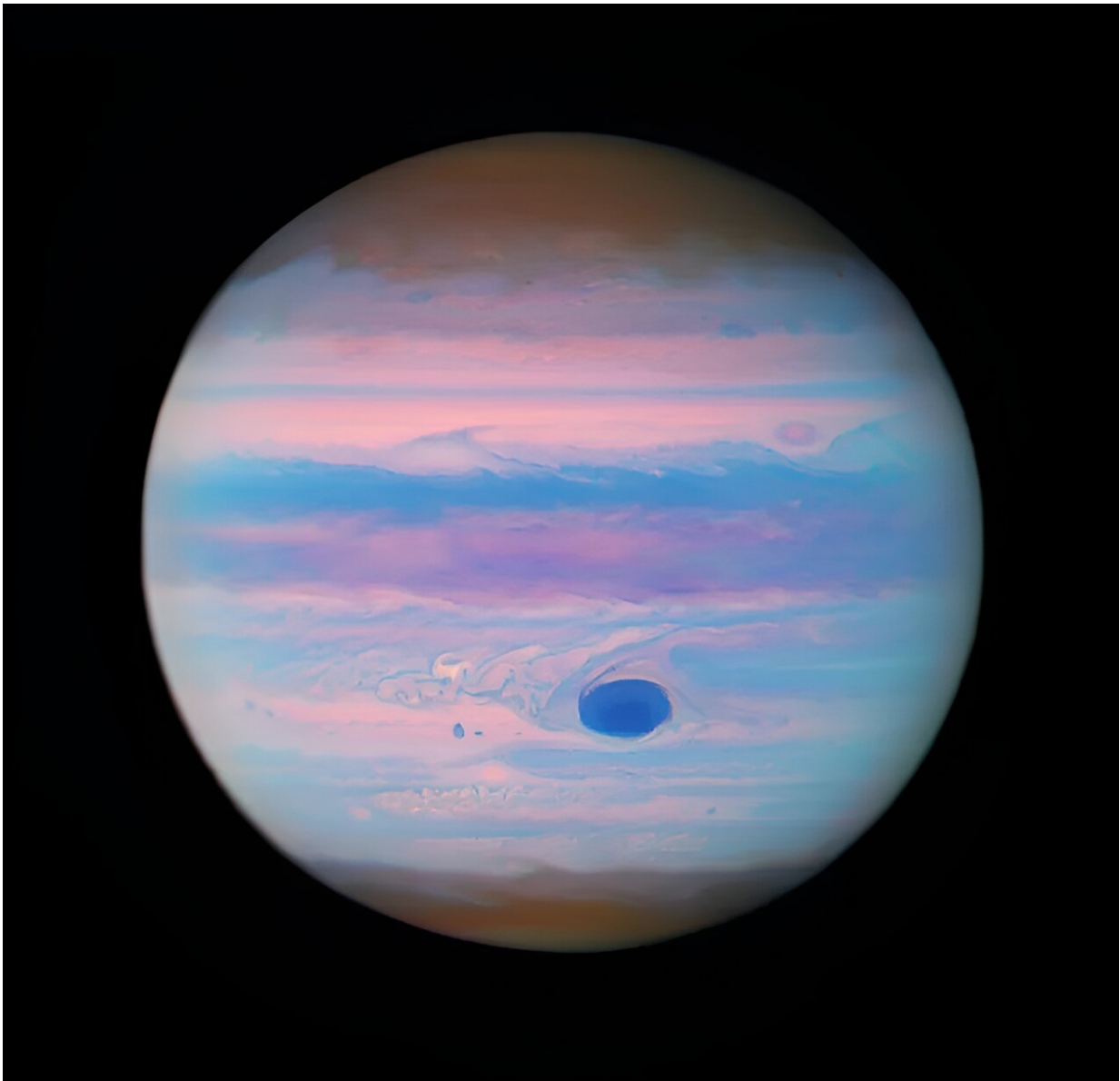


Hubble provides unique ultraviolet view of Jupiter

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NASA's Hubble Space Telescope reveals an ultraviolet view of Jupiter. Credit: NASA, ESA, and M. Wong (University of California–Berkeley); Processing: Gladys Kober (NASA/Catholic University of America)

This newly released image from the NASA Hubble Space Telescope shows the planet Jupiter in a color composite of ultraviolet wavelengths. Released in honor of Jupiter reaching opposition, which occurs when the planet and the sun are in opposite sides of the sky, this view of the gas giant planet includes the iconic, massive storm called the "Great Red Spot."

Though the storm appears red to the human eye, in this ultraviolet image it appears darker because high altitude haze particles absorb light at these wavelengths. The reddish, wavy polar hazes are absorbing slightly less of this light due to differences in either particle size, composition, or altitude.

The data used to create this ultraviolet image is part of a Hubble proposal that looked at Jupiter's stealthy superstorm system. The researchers plan to map deep water clouds using the Hubble data to define 3D cloud structures in Jupiter's atmosphere.

Hubble has a long history of observing the [outer planets](#). From the Comet Shoemaker-Levy 9 impacts to studying Jupiter's storms, Hubble's decades-long career and unique vantage point provide astronomers with valuable data to chart the evolution of this dynamic planet.

Hubble's ultraviolet-observing capabilities allow astronomers to study the short, high-energy wavelengths of light beyond what the human eye can see. Ultraviolet light reveals fascinating cosmic phenomena, including light from the hottest and youngest stars embedded in local galaxies; the

composition, densities, and temperatures of the material between stars; and the evolution of galaxies.

This is a false-color image because the [human eye](#) cannot detect [ultraviolet light](#). Therefore, colors in the visible light spectrum were assigned to the images, each taken with a different ultraviolet filter. In this case, the assigned colors for each filter are: Blue: F225W, Green: F275W, and Red: F343N.

Provided by NASA

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